United States Patent [19]

Kalt

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[54] **ELECTRO-STATIC DEVICE WITH ROLLING ELECTRODE**

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[21] Appl. No.: **580,572**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 495,189, Aug. 8, 1974, Pat. No. 3,897,997, and a continuation-in-part of Ser. No. 438,574, Feb. 1, 1974, abandoned, which is a continuation-in-part of Ser. No. 294,590, Oct. 3, 1972, abandoned.

[52] **U.S. Cl.** **350/161;** 350/269; 350/285

[51] **Int. Cl.²** **G02F 1/16**

[58] **Field of Search** ..... 350/161, 266, 269, 285; 178/7.3 D, 7.5 D

[56] **References Cited**

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3,553,364	1/1971	Lee	350/269
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Primary Examiner—William L. Sikes

[57] **ABSTRACT**

An electrostatic device includes a fixed electrode to which is attached an end edge of a coiled or curved variable resilient sheet electrode. An insulative layer separates the two electrodes, being either bonded to the fixed electrode or being bonded to the resilient electrode. The resilient variable electrode is caused to unroll upon the application of an electric potential between the two electrodes. The device is particularly adaptable for use as a light gate. It is capable of being actuated by an electrical potential either in a light transmission mode or in a variable reflectivity mode.

33 Claims, 18 Drawing Figures